



APPENDIX B

CLEAN CLAIMS AS AMENDED IN APPLICATION SN 09/576,101

14. A polynucleotide comprising a nucleic acid sequence encoding a plurality of CTL epitopes, wherein at least two of the sequences encoding said CTL epitopes are contiguous or spaced apart by intervening sequences, wherein said intervening sequences do not (i) comprise an initiation codon or (ii) encode naturally occurring flanking sequences of the epitopes.
15. A polynucleotide comprising a nucleic acid sequence encoding a plurality of CTL epitopes, wherein the sequence encoding said CTL epitopes are contiguous.
16. The polynucleotide of claim 14, wherein said polynucleotide encodes two CTL epitopes.
17. The polynucleotide of claim 14, wherein said polynucleotide encodes three CTL epitopes.
18. The polynucleotide of claim 14, wherein said polynucleotide encodes nine CTL epitopes.
19. The polynucleotide of claim 14, wherein said polynucleotide encodes ten CTL epitopes.
20. A vector comprising the polynucleotide of claim 14.
21. The vector of claim 20, wherein said vector is selected from the group consisting of a viral vector and a virus-like particle (VLP).
22. The vector of claim 21, wherein said viral vector is a vaccinia vector.
23. The vector of claim 21, wherein said viral vector is an avipox virus vector.
24. The vector of claim 21, wherein said vector is a VLP.²⁵ The polynucleotide of claim 14, wherein at least one of said CTL epitopes is derived from a pathogen.
26. The polynucleotide of claim 14, wherein said polynucleotide comprises a nucleic acid sequence encoding CTL epitopes derived from a plurality of pathogens.

27. The polynucleotide of claim 25, wherein said pathogen is selected from the group consisting of Epstein Barr Virus, Influenza Virus, Cytomegalovirus, Adenovirus and HIV.
28. The polynucleotide of claim 14, wherein at least one of said epitopes is derived from a tumor protein.
29. The polynucleotide of claim 14, further comprising a nucleic acid sequence encoding a T helper cell epitope, a B cell epitope, or a toxin.
30. The polynucleotide of claim 14, further comprising a nucleic acid sequence encoding a T helper cell epitope.
31. The polynucleotide of claim 14, further comprising a nucleic acid sequence encoding a B cell epitope.
32. The polynucleotide of claim 14, further comprising a nucleic acid sequence encoding a toxin.
33. A nucleic acid vaccine comprising a polynucleotide comprising a nucleic acid sequence encoding a plurality of CTL epitopes, wherein at least two of the sequences encoding said CTL epitopes are contiguous or spaced apart by intervening sequences, wherein said intervening sequences do not (i) comprise an initiation codon or (ii) encode naturally occurring flanking sequences of the epitopes, and an acceptable carrier.
34. A nucleic acid vaccine comprising a polynucleotide comprising a nucleic acid sequence encoding a plurality of CTL epitopes, wherein the sequences encoding said CTL epitopes are contiguous, and an acceptable carrier.